MURS320-K-18C

SURFACE MOUNT
ULTRAFAST RECTIFIER
VOLTAGE: 200V **CURRENT: 3.0A**

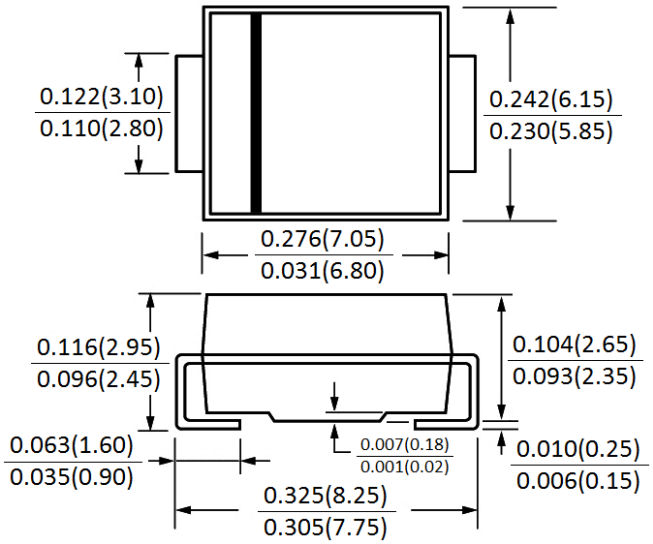
FEATURE

Plastic package has Underwriters Laboratories Flammability Classification 94V-0
Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
Ultrafast recovery time for high efficiency
High surge capability
High temperature soldering guaranteed
260℃/10sec/at terminals
Glass passivated chip
Meet Standard of AEC-Q101

MECHANICAL DATA

Terminals: Solder plated, solderable per J-STD-002
Case: Molded plastic body over passivated chip
Polarity: Color band denotes cathode end
Weight: 0.007 ounce, 0.21 gram
Mark: M320

SMC-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60Hz, resistive or inductive load rating at 25℃, unless otherwise stated)

	Symbol	MURS320-K-18C	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	200	V
Maximum RMS Voltage	Vrms	140	V
Maximum DC blocking Voltage	Vdc	200	V
Maximum Average Forward Rectified Current 3/8″lead length at : T_L =90℃	If(av)	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	125.0	A
Maximum Instantaneous Forward Voltage at rated forward current T_J =25℃ If =3.0A	Vf	0.875	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	5.0 50.0	μA
Maximum Reverse Recovery Time (Note1)	Trr	25	nS
Typical Junction Capacitance (Note 2)	Cj	50	pF
Typical Thermal Resistance, junction to lead	Rth(jl)	11	℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-55 to +150	℃

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

Fig. 1 – Forward Current Derating Curve

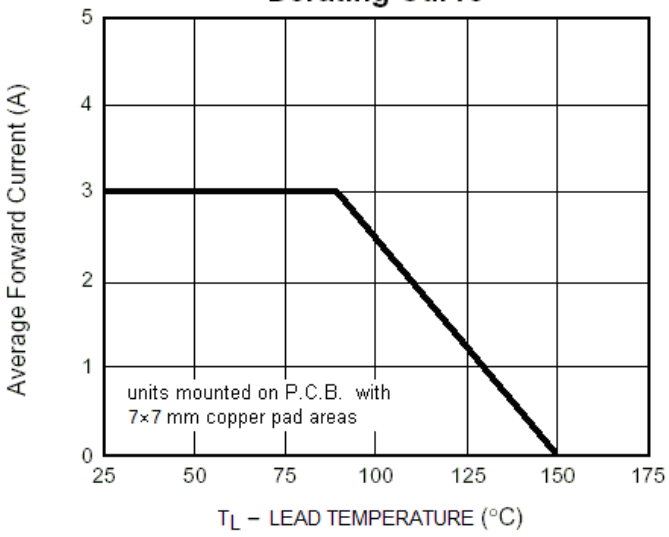


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

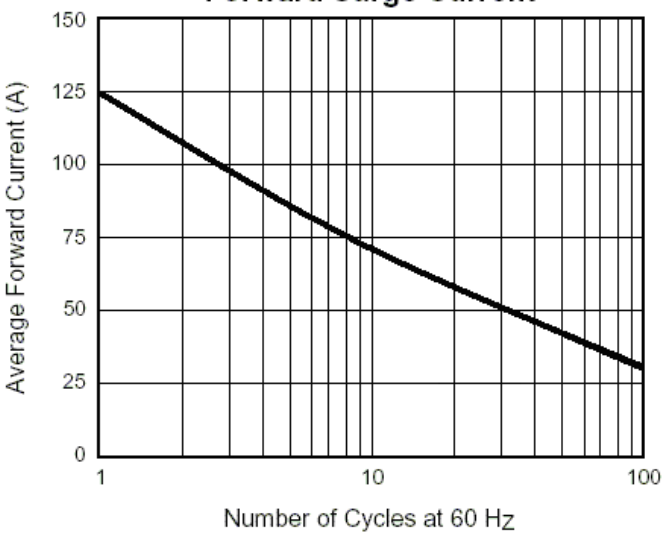


Fig. 3 – Typical Instantaneous Forward Characteristics

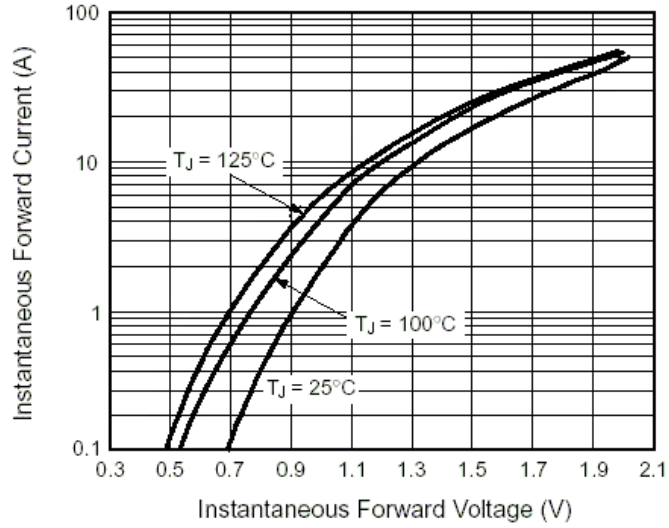


Fig. 4 – Typical Reverse Characteristics

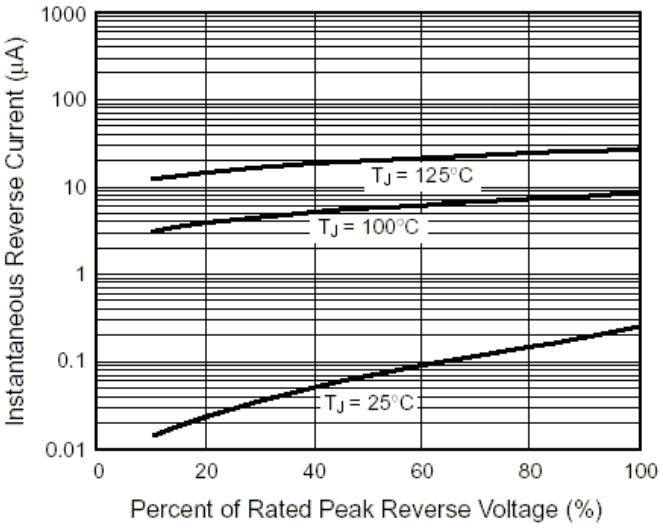


Fig. 5 – Typical Junction Capacitance